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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,385	11/25/2003	Hanjun Luo	14565.0001US01	8005

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EXAMINER	
GERGISO, TECHANE	
ART UNIT	**PAPER NUMBER**
2137	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/01/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,385	LUO ET AL.	
	Examiner	Art Unit	
	Techane J. Gergiso T-G	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *May 12, 2004*..

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/18/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This is a non Final Office Action in response to the application filed on May 12, 2004.

2. Claims 1-5 have been examined.

3. Claims 1-5 are pending.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 2 are recite the limitation "**the request message**" in claim 1: line 3"; "**the port and MAC address**" in claim 1: line 5"; "**the authenticated data**" in "claim 1: line 8"; and "**the authentication server**" in "claim 2: lines 15-16". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claim1 rejected under 35 U.S.C. 101 because:

Claim 1 is a method directed an 802.1X protocol-based multicasting control method. The method provides a step end result of authenticating the subscriber's account number and multicasting IP address, and then adding the subscriber to the multicasting group if the authentication is passed successfully; otherwise the subscriber's request is rejected. However, the end result IP multicasting does not provide and include the intended **802.1x protocol-based multicast control**.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over IEEE Std 802.1X-2001. Port-Based Network Access Control *Approved 14 June 2001* IEEE-SA Standards Board (hereinafter referred to IEEE) in view of Norihiro et al. An Architecture for User Authentication of IP Multicast and Its Implementation 1999IEEE (hereinafter referred to as Norihiro).

As per claim 1:

IEEE discloses an 802.1X protocol-based multicasting control method, comprising the following steps:

Step 1: intercepting the request a message for joining a multicasting group sent by an authenticated subscriber (Figure 6.5 Figure 8-3: EAP-Request/Identity; Page 119: j Multicast propagation; Page 123: Section C.3.3 Crosstalk);

Step 2: obtaining the port and MAC address of the subscriber from the intercepted message (Page 78: Description: "The port number, protocol version, and initialization control for a port; Figure 6.5 Figure 8-3: EAP-Request/Identity; Page 119: j Multicast propagation; Page 123: Section C.3.3 Crosstalk);

Step 3: searching corresponding subscriber account information from the authenticated data according to said port and MAC address (figure 8.14-Supplicant PAE State machine; Table 10-1: 9.5.2 Supplicant Statistics).

IEEE does not explicitly teach a message for joining a multicasting group and authenticating the subscriber's account number and multicasting IP address, and then adding the subscriber to the multicasting group if the authentication is passed successfully; otherwise the subscriber's request is rejected. Norihiro in analogous art, however, teach a message for joining a multicasting group and authenticating the subscriber's account number and multicasting IP address, and then adding the subscriber to the multicasting group if the authentication is passed successfully; otherwise the subscriber's request is rejected (page 82: Authentication of IP multicast receivers; Figure 1; page 83: Section 5.2; figure 3). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the method disclosed by IEEE to include a message for joining a multicasting group and authenticating the subscriber's account number and multicasting IP address, and then adding the

subscriber to the multicasting group if the authentication is passed successfully; otherwise the subscriber's request is rejected. This modification would have been obvious because a person having ordinary skill in the art would have been motivated by the desire to provide an architecture for the user authentication function of IP multicast which prevents an unauthorized user from sending and receiving IP multicast datagram as suggested by Norihiro in (Page 81: Abstract).

As per claim 2:

IEEE discloses an 802.1X protocol-based multicasting control, comprising: the authentication server at 802.1X authentication end being utilized to authenticate the subscriber's account number and multicasting IP address (Page 78: Description: "The port number, protocol version, and initialization control for a port; Figure 6.5 Figure 8-3: EAP-Request/Identity; Page 119: j Multicast propagation; Page 123: Section C.3.3 Crosstalk).

As per claim 3:

IEEE discloses an 802.1X protocol-based multicasting control method, wherein the authentications of subscriber's account number and multicasting IP address are implemented through verifying whether the multicasting IP address is authorized to accept the subscriber with said account number (figure 8.14-Supplicant PAE State machine; Table 10-1: 9.5.2 Supplicant Statistics).

As per claim 4:

IEEE discloses an 802.1X protocol-based multicasting control, wherein if said 802.1X is based on port authentication, when a subscriber attached to said port makes a request for joining in a multicasting group, the subscriber's MAC address is searched for first;

if said MAC address is found, the subscriber's account number is searched for according to said MAC address and port number (page 22: Section 8.3.3; Port access restrictions; page 35:portControl; PortEnabled; figure 8-8: Authenticator PAE state machine);

if said 802.1X protocol is based on MAC authentication, when a subscriber attached to said port makes a request for joining in a multicasting group, the subscriber's account number is searched for directly according to the subscriber's MAC address and port number (page 22: Section 8.3.3; Port access restrictions; page 35:portControl; PortEnabled; figure 8-8: Authenticator PAE state machine).

As per claim 5:

Norihiro discloses an 802.1X protocol-based multicasting control, wherein the subscriber joins in the multicasting group through IGMP protocol (page 84: Compatibility with IGMPv2 Compliant IP Multicast Senders and receivers).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the notice of reference cited in form PTO-892 for additional prior art

Contact Information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Techane J. Gergiso whose telephone number is (571) 272-3784 and fax number is (571) 273-3784. The examiner can normally be reached on 9:00am - 6:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T. G

Techane Gergiso

Patent Examiner

Art Unit 2137

January 25, 2007

EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER